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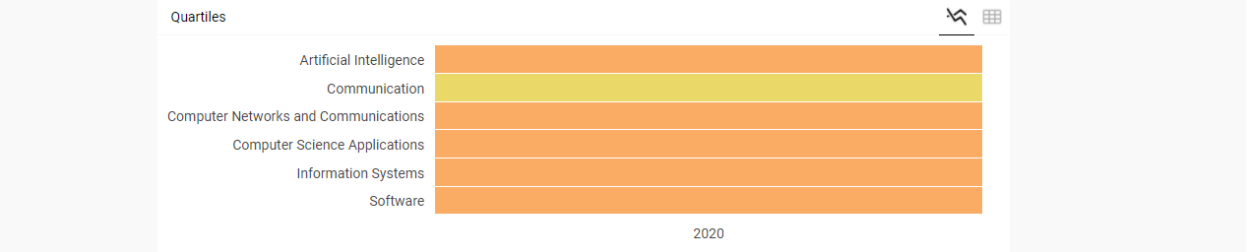

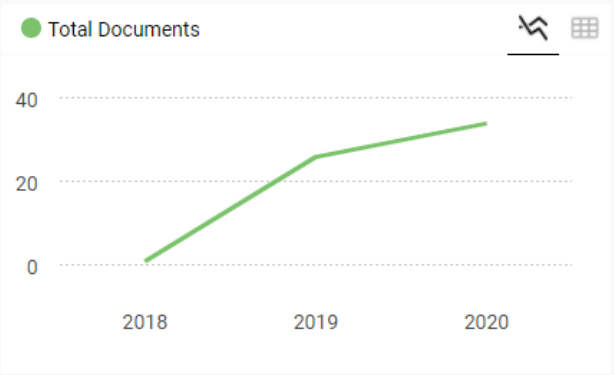

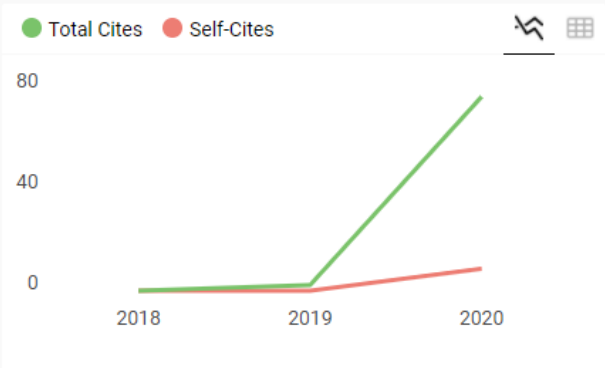

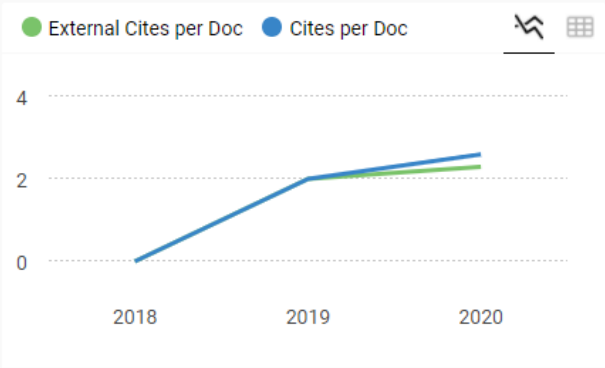

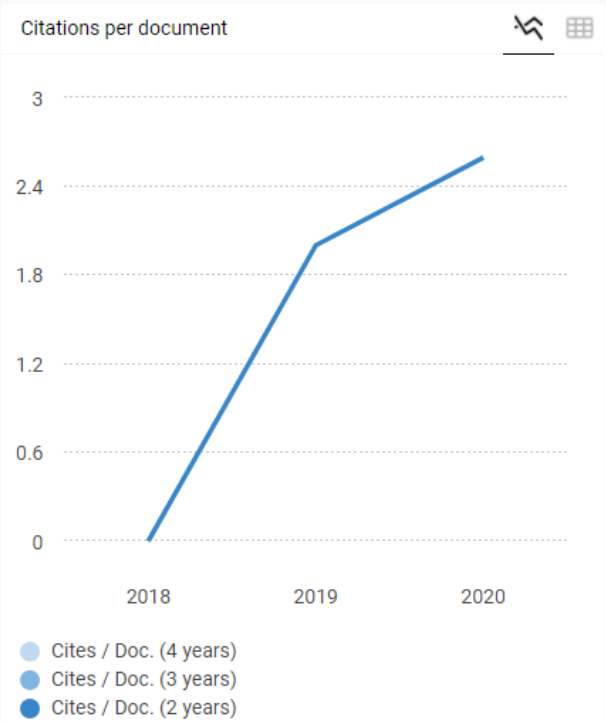

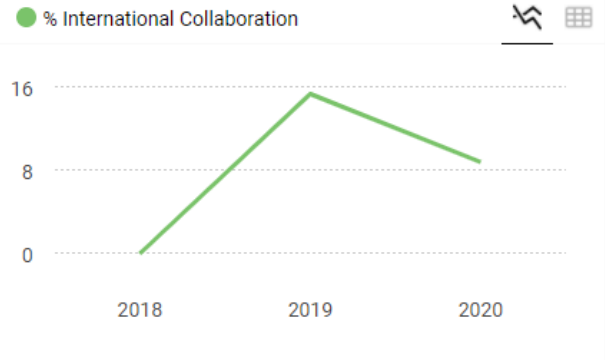

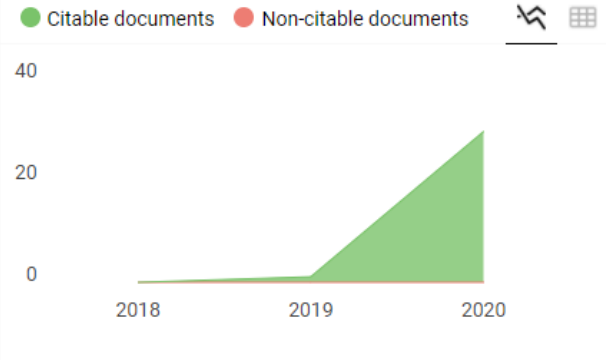

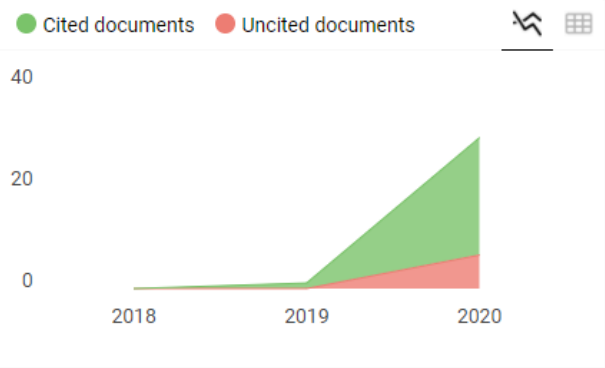

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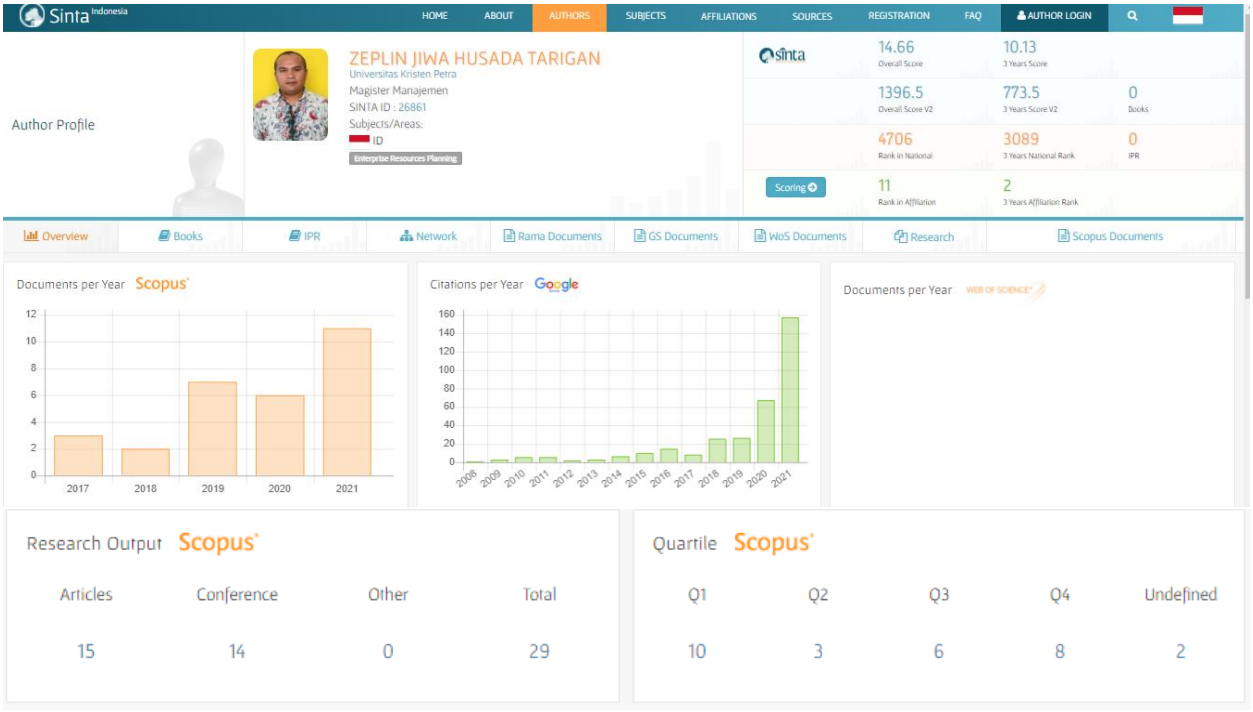

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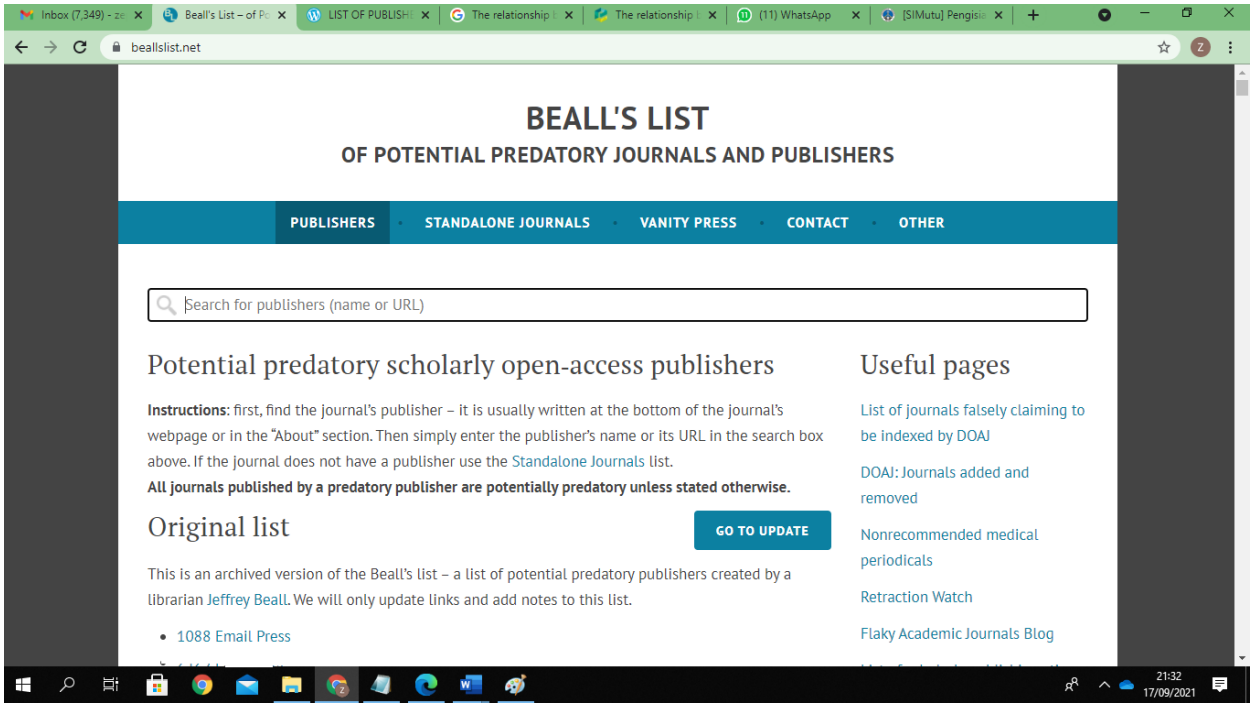

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Volume 4 No. 4 Pages: 337-388 (October 2020)

Open Access Article

1. **Impact of digital transformation on the individual job performance of insurance companies in Peru** *Pages: 337-346*

Carla Victoria Guzmán-Ortiz, Nohelia Gabriela Navarro-Acosta, Wilmer Florez-Garcia and Wagner Vicente-Ramos PDF (650K)

Abstract: The objective of this study was to analyze and determine the impact of digital transformation on the individual job performance of insurance companies in Peru. The deductive inferential scientific method of explanatory level was used, with a non-experimental design, to four insurance companies that operate in the regions of Arequipa, Cusco, Iquitos, Lima, Tacna and Trujillo. The results generated by structural equations show that customer service experience (CSE), based on digital transformation, had a positive impact on task performance ($p \leq 0.05$) and contextual performance ($p \leq 0.05$); in contrast, the customer service experience (CSE), based on digital transformation, was found to have no impact on counterproductive behavior ($p \geq 0.05$). In relation to the collaborator's capabilities (CC) based on digital transformation, the results reveal that it had a significant influence on task performance ($p \leq 0.05$) and contextual performance ($p \leq 0.05$), while it did not have any impact on counterproductive behavior ($p \geq 0.05$). Likewise, processes based on digital transformation (P) significantly influence task performance ($p \leq 0.05$) and contextual performance ($p \leq 0.05$), unlike counter-productive behavior that did not present a causal link with the processes ($p > 0.05$). Finally, the business model based on digital transformation (BM) had no implications for task performance ($p > 0.05$), contextual performance ($p > 0.05$) and counterproductive behaviors ($p > 0.05$). The conclusion of the study indicates that the customer service experience, the collaborator's capabilities and processes based on digital transformation contribute to the performance and contextual performance of the workers of the insurance companies in Peru.

DOI: 10.5267/j.ijdns.2020.9.005
Keywords: Digital transformation, Individual job performance, Customer service experience, Employee capabilities, Business model

2. **The effect of culture dimension in digitalization era on the complaint behavior in hotel industry** *Pages: 347-356*

Ni Made Dwi Wahyuni, I Made Wardana, Ni Nyoman Kerti Yasa, Putu Gde Sukaatmadja and Made Setini PDF (650K)

Abstract: To conduct business in the global market in the era of digitalization, hotels need to pay more attention to the complaint behavior of guests with different cultures to adjust their methods of handling these complaints. The purpose of this study is to analyze the influence of Hofstede's five cultural dimensions on the complaint behavior of guests. This study also offers strategic solutions for hoteliers in facing various kinds of complaint behavior from guests with different cultures. This research was conducted on tourists who have stayed in five-star hotels in Badung Regency – Bali, with a total sample of 110 respondents. The data were col-lected through questionnaires. The data analysis was performed using the structural equation model (SEM) with the partial least square (PLS) approach. The results of this study indicate that the power distance cultural dimension has a significant influence on public action and private action. Uncertainty avoidance, individualism versus collectivism, and long term versus short term orientation dimension have a significant influence on public action and private action. The culture of masculinity versus femininity has a significant influence on private action and no action.

DOI: 10.5267/j.ijdns.2020.9.004
Keywords: Cultural dimensions, Complaint behavior, Hotel management

3. **An extensive comparison of CB-SEM and PLS-SEM for reliability and validity** *Pages: 357-364*

Asyraf Afthanorhan, Zainudin Awang and Nazim Aimran PDF (650K)

Abstract: Structural Equation Modeling (SEM) includes measurement and structural model for hypothesis testing. The results yielded from structural model is unlikely to be valid if a poor loading of an indicator is selected. The impact of these erroneous result on standardized loading is disregard. Thus, knowing how poor loading can affect the validity of measurement model is a crucial issue. This paper attempts to compare the standardized loadings result between two prominent SEM methods (CBSEM and PLS-SEM) using three varied of simulation models (TRA, Loyalty and UTAUT model) to investigate their effects on reliability and validity of measurement model. The data for each model were generated using R software by setting the value of standardized loading and the construct correlations (N=50, 100, 200 and 500). The value of standardized loadings was set to 0.60 for each construct in the model while the construct correlations were set in the range between 0.45 to 0.65. Then, the AMOS 21.0 and ADANCO 2.0 were used to perform the statistical analysis. It shows that good standardized loading can increase the reliability and validity of construct representation. CBSEM is particularly yielded valid and unbiased estimation under confirmatory condition (established theory) compared with PLS-SEM. The results are illustrated with empirical examples. This paper provides updated evidence about CBSEM and PLS-SEM when assessing the measurement model.

DOI: 10.5267/j.ijdns.2020.9.003
Keywords: CBSEM, PLS-SEM, Standardized Loadings, Reliability and Validity

4. **The role of affective leadership in improving firm performance through the integrated internal system and external integration FMCG Industry** *Pages: 365-372*

Hotlan Siagian, Kezia Jade and Zeplin Jiwa Husada Tarigan PDF (650K)

Abstract: The manufacturing industry always tries to improve performance amid the trade globalization. Demand and supply uncertainty, and increasingly the intense competition, prosecute the presence of an affective leadership to integrate the company's internal and external resources in improving company performance. This research investigates the role of affective leadership in firm performance through an internally integrated system and external integration in FMCG companies. Data collection used questionnaires, designed with a five-point Liker scale, were distributed to 55 fast-moving consumer goods (FMCG) manufacturing companies. The data analysis used the PLS technique utilizing smart PLS software to assess the validity and reliability of the outer model and to examine the hypotheses developed. The results of the hypothesis testing found that affective leadership can improve internal system integration, external integration, and firm performance. Internal system integration has an impact on external integration but is not strong enough to have a direct effect on firm performance. The internally integrated system has an influence on firm performance through external integration. The company's ability to share information with external partners can improve firm performance through demand fulfillment. The study provides a managerial implication on how to enhance firm performance in the context of internal and external system integration. The finding of this research enriches the current studies in supply chain management.

DOI: 10.5267/j.ijdns.2020.9.002
Keywords: Affective leadership, Integrated internal system, External integration, Firm performance

6. **The impact of using online social media networks on employees' productivity in higher educational institutions** *Pages: 381-388*

Khaled Salmen Aljaaidi PDF (650K)

Abstract: The purpose of this study was to examine the impact of the online social media networks (OSMNs) on productivity at workplace among 88 administrative staff at Prince Sattam bin Abdulaiziz University for the academic year 2020-2021. This study finds that using online social media networks by PSAU's employees at the workplace enhances their productivity. The majority of the employees (59%) perceive that using the OSMNs at workplace have a positive impact on their productivity. In addition, the majority of the employees (33%) regularly use WhatsApp as a useful online social media network at the workplace. The results also indicate that the majority of the employees (66%) use the OSMNs at workplace more than once a day. Further, the majority of the PSAU's employees (39%) use the OSMNs at work-place less than half an hour per a day. Furthermore, 39% of the PSAU's employees use the OSMNs at workplace to keep in touch with their families and friends, and 34% of the employees use the OSMNs to search for work-related information. The results of this study should be useful to policy makers in Saudi Arabia at the country, ministry of education, PSAU, and elsewhere in gaining a deeper understanding on how using the OSMNs at work-place can enhances the employees' productivity.

DOI: 10.5267/j.ijdns.2020.8.002
Keywords: OSMNs, Productivity, PSAU, Saudi Arabia

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The role of affective leadership in improving firm performance through the integrated internal system and external integration FMCG Industry

Hotlan Siagian[a], Kezia Jade[b] and Zeplin Jiwa Husada Tarigan[c*]

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C H R O N I C L E

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A B S T R A C T

The manufacturing industry always tries to improve performance amid the trade globalization. Demand and supply uncertainty, and increasingly the intense competition, prosecute the presence of an affective leadership to integrate the company's internal and external resources in improving company performance. This research investigates the role of affective leadership in firm performance through an internally integrated system and external integration in FMCG companies. Data collection used questionnaires, designed with a five-point Liker scale, were distributed to 55 fast-moving consumer goods (FMCG) manufacturing companies. The data analysis used the PLS technique utilizing smart PLS software to assess the validity and reliability of the outer model and to examine the hypotheses developed. The results of the hypothesis testing found that affective leadership can improve internal system integration, external integration, and firm performance. Internal system integration has an impact on external integration but is not strong enough to have a direct effect on firm performance. The internally integrated system has an influence on firm performance through external integration. The company's ability to share information with external partners can improve firm performance through demand fulfillment. The study provides a managerial implication on how to enhance firm performance in the context of internal and external system integration. The finding of this research enriches the current studies in supply chain management.

1. Introduction

Recent developments in the global manufacturing industry have led to a renewed perspective, particularly in the context of supply chain integration. Besides, the presence of the manufacturing sector has contributed to an increasing portion of the gross domestic product (GDP) of the countries, including Indonesia. The manufacturing industry in Indonesia is experiencing growth in line with globalization, which also has an impact on Indonesia's economic growth. Indonesia's economic growth continues to show a positive trend, with an average of over five percent per year, which is supported by the role of the manufacturing sector, provides the most substantial contribution to the National gross domestic product (GDP). The manufacturing industry is the backbone of Indonesia's national economic growth. The program in industrialization has provided added value to domestic raw materials consumption, absorption of labor, and foreign exchange earnings from exports and taxes (Hartarto, 2019). The food and beverage manufacturing industry contributed the largest to Indonesia's national GDP

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in 2018, amounting to 6.33 percent, and also experienced the highest growth compared to other industrial subsectors, which was 9 percent. The food and beverage industry can make product innovation breakthroughs in order to meet the tastes of a large number of customers and suppliers. The industrial revolution 4.0 with integrated technology, users can spur productivity and quality in more practical know-how so that the products are more innovative and competitive.

Many researchers have argued that the management of supply chain integration in a company requires a reliable leader who can support the integration of supply chain with business functions to produce high-quality products and increase customer satisfaction. Supply chain integration is an integration that occurs between companies and company partners, namely company suppliers and company demand, as well as integration within the company by integrating functions within the company (Leuschner et al., 2013). The implementation of supply chain integration can connect all partners' supply chain to align company goals and is very important to improve firm performance (Tarigan et al., 2018). Besides, integration in the supply chain flow creates a good value or image regarding product manufacture, which will later affect firm performance (Liu et al., 2013). Supply chain integration increases value for stakeholders by connecting all partners in the supply chain (Han et al., 2013). Supply chain integration must be able to maintain relationships between partners' supply chain, facilitate the accurate and responsive flow of information between suppliers to customers so that it will increase firm performance. Supply chain integration also concentrates on the introduction of new technologies to ensure the smooth flow of information and products or services in the supply chain. ERP system is an integrated system that can integrate within the company and integrate with external companies so that the flow of information starts from suppliers to customers (Mehrjerdi, 2010; Aremu et al., 2018; Tarigan et al., 2020). Meanwhile, the implementation of ERP systems is highly costly, complex processes and social interactions between departments and companies (Huo et al., 2014), requires external knowledge and expertise (Xu & Ma, 2008), training for users and customizing the system to suit the company's circumstances (Shanab et al., 2015). Also, ERP systems are often perceived as a mandatory platform in business processes and cover the entire company, which causes companies to experience difficulties in convincing employees to commit to the ERP implementation process system (Shaul & Tauber, 2012). As many as 90% of the implementation of the ERP systems tend to exceed budgeted time and costs and show the failure rates of 67% in achieving company goals, and there are more than 40% of large-scale projects that fail (Shaul & Tauber, 2012). The failure rate of ERP systems is estimated at 60–90% (Shanab et al., 2015). Up to 55 and 75% of the ERP systems implemented in companies are not able to meet the expected results when planning is carried out (Beheshti et al., 2014). Many ERP projects fail because the ERP tools are not implemented properly and cause financial losses that lead to bankruptcy (Shanab et al., 2015).

The studies argued that support from top management has an impact on the success of implementing ERP (Aremu et al., 2018). This study has argued that management decisions as leaders in companies can lead the organizations to use ERP systems as integrated information technology in companies (Agha et al., 2019). Affective leadership can be the right leader in driving the success of the ERP system with the ability to motivate employees, improve skills, and support innovative ideas that can provide value to the company. Affective leadership can result in proper program implementation because the leader has an emotional affinity with the organization and appreciates the organization to achieve its stated goals (Jehanzeb & Mohanty, 2020). Integration between functions within the company properly, and external integration is the goal of top management. Affective leadership creates a trust-based climate with members within the company, which can strengthen the level of trust between the company and partners' supply chain (Birasnav, 2013). This affective leadership can help develop long-term relationships through a sense of trust between the partners' supply chain to create a sustainable and prosperous SCI in the company (Defee et al., 2010). The leadership role in the supply chain is considered as the basis for increasing market share and returns on investment that can increase firm performance.

The manufacturing industry in this era is required to adapt by maintaining competitiveness, increasing capabilities, and resources for development (Aremu et al., 2018). This research also concluded that the organization is vital to find new ways to operate company structures, in terms of management practices, and leadership (Masa'deh et al., 2016; Vito et al., 2014). Besides, the goal of an industry is to be sustainable and achieve a competitive advantage in the pursuit of increased company income, creating job opportunities, and developing high-quality products (Taouab & Issor, 2019). Firm performance is a mirror of the company's condition during a specific period and is the result of the operational activities in utilizing its resources. The leader is present as a person who is responsible for facing the changing business environment in the company (Rattanaborworn & Ussahawanitchakit, 2015). Leaders need to maximize firm performance by motivating employees to move forward, building employee confidence, making positive changes, and setting goals (Burawat, 2019). Based on the explanation, this study aims: first, to obtain the magnitude of the impact of Affective leadership on the internally integrated system, external integration, and firm performance. Second, get the significant impact of an internally integrated system on external integration and firm performance. Third, get the magnitude of the influence of external integration that affects firm performance.

2. Literature Review

The ability of a manufacturing company to build relationships or connect suppliers, transportation systems, company inventory, company production processes, distribution systems, and product delivery to customers in a supply chain management

flow can improve company performance. In increasing added value for the company to be more efficient and affective, the company integrates with its suppliers and with its customers through integrated information technology with all company functions and external parties, which is called supply chain integration (Tarigan et al., 2020).

2.1. Affective Leadership

Top management, as leadership in the company, is competent in building relationships and influencing all components in the organization and partner companies in building mutual competitiveness to maintain the sustainability of the company (Gosling et al., 2016). The ability of top leaders to run the supply chain in the company depends on the ability of management to direct employees in doing the supply chain practices, provide the role models for employees in taking actions in the form of decisions on supply chain implementation. Also, it depends on the ability of top management to adjust the company's strategy based on the needs of supply chain implementation and to empower corporate partners to achieve common goals (Mokthar et al., 2018). Management seeks to influence the availability of information, encourage informal communication, provide opportunities for members to contribute ideas, and make decisions that impact the supply chain in the company. Birasnav et al. (2015) revealed that developing Affective leadership will be crucial to improve the performance of the supply chain overall. The reason is that leadership significantly contributes to building strong long-term relationships with suppliers through trust and commitment to information sharing. Trust and commitment in relationships, as well as information sharing, can have the effect of shortening the cycle time purchase. Ojha et al. (2018) revealed that transformational leadership improves the behavior of job performance in the supply chain with the company's ability to pursue exploration and exploitation strategies (Chen et al., 2019). Leadership has a positive effect on the supply chain in purchasing management, which has an impact on the ability of information processing and reduces cycle time in the purchase process (Gosling et al., 2016).

Birasnav et al. (2015) revealed that leadership in SCM refers to a leader's ability to influence the actions and behavior of the supply chain members by imposing rewards and punishments. Leadership is built on the premise of a reciprocal relationship between leaders and members (Vito et al., 2014), in which economic, political, and psychological values are exchanged in exchange for meeting predetermined performance standards (Ravichandran et al., 2007). This form of leadership is more passive which requires monitoring for irregularities and errors, then taking corrective action when problems occur, focusing on this short-term leadership, or just for everyday life (Masa'deh et al., 2016). Leadership has several deficiencies that were deemed unable to lead the company is facing a business environment changes and uncertainty (Burawat, 2019). Affective leaders can develop long-term relationships and make more efforts to control the behavior of their members through giving rewards for the performance results (Defee et al., 2010). An effective leader in supply chain integration builds an internally integrated system and external integration. Affective leadership is the leader's ability to manage the internal company in terms of performance of individual employees, as well as the external company due to the changes in the environment of the supply chain. Affective leaders provide motivation and encouragement to the members and emphasize the achievement of a shared vision through building long-term relationships and a sense of trust in all members (Jehanzeb & Mohanty, 2020). This study uses indicators in measuring affective leaders; namely, the leader is a role model for company employees, the leader can communicate well, the leader can solve problems well, and the leader can provide the inspiration.

2.2. Supply Chain Integration

Supply chain integration (SCI) is the strength of relationships in the supply chain process in an interconnected company. The SCI integrated the company with customers, suppliers, internal and external (Leuschner et al., 2013). Supply chain integration is the integration of the core functions of a company with the supply chain through information technology and partnerships and mergers (Birasnav, 2013). Supply chain integration is an implementation of information technology in strategic partnerships and collaborations with suppliers and customers (Birasnav & Bienstock, 2019). SCI is a form of an effort to minimize operating costs, as well as increase value for stakeholders by connecting organizations in the flow supply chain (Han et al., 2013). SCI can be improved by sharing information about the main activities in the processes in the supply chain, and SCI needs to go beyond organizational boundaries, connecting external suppliers, production, and customers (Li et al., 2009). ERP systems provide companies with extensive facilities and capabilities to share and transfer company data and processes both inside and outside the company into a single system and database (Gupta et al., 2018). ERP systems can address various functional areas, such as sales, accounts receivable, accounts payable, engineering, inventory management, production, purchasing, quality management, human resources, production, and distribution planning (Shatat and Udin, 2012; Tarigan et al., 2020). ERP systems allow the reduction of data processing processes, minimize errors and repetition of work, coordinate and manage resources effectively, improve communication with customers and suppliers, access data and information instantly, and update data automatically (Eker & Eker, 2018). Supply chain integration can be divided into two, namely an integrated internal system and integration with external of the companies. Internal integration is the extent to which a company or manufacturer develops its strategy, practice, and organizational process into a collaborative and synchronized process to meet the requirements of its customers (Huo et al., 2014). Internal integration in SCI is the main thing where interactions within the company can only occur when the company does job enrichment or enriches jobs. Job enrichment involves the function of employees in solving various problems and is expected to increase the intensity of interactions with the company. Excellent interaction between employees will increase internal integration through harmony and cooperation. Internal integration realizes that each department and different functional areas within the company must operate together as part of an integrated

process that aims to meet customer demands. Internal integration as a form of integrated internal system is an element of the process in the form of joint planning, information sharing, and cross-functional cooperation (Han et al., 2013). Integrated internal system is measured by the availability of data that is faster in solving problems, data integration between departments is well available, the accuracy of the company in planning, and the company's ability to make better forecasting (Agha et al., 2019). External integration recognizes the importance of building close interactive relationships with suppliers and customers by responding to, developing, selecting, and implementing strategies to sustain internal and external circumstances.

The development of strong strategic relationships or partnerships with suppliers and customers will facilitate understanding and forecasting the company's needs in order to meet changing demands from customers (Han et al., 2013). External integration is an integration that is built by manufacturing companies partnering with external partners to develop inter-organizational strategies, practices, and processes into synchronized collaborative processes (Huo et al., 2014). Birasnav and Bienstock (2019) reveal that supplier integration is a social process in which manufacturing companies take advantage of supplier design and technical competences through developing strong long-term relationships. Supplier integration helps producers reduce errors and improve information quality through information sharing and joint planning, which is directly related to the operational performance of producers (Huo et al., 2014). Customer integration allows companies as producers to understand customer demand, utilize customer capabilities to strengthen company capabilities, and to develop long-term relationships so as to enable manufacturing systems to produce innovative products (Birasnav & Bienstock, 2019). The success of supply chain integration use the ERP system requires a smooth flow of information that is accurate and timely across partners' supply chain, the ability to manage information flows one of the essential things in today's companies (Beheshti et al., 2014). A high level of supply chain integration makes producers, namely companies, more flexible with customer demands, reduces delivery times, and reduces inventory, thus making the supply chain more efficient. Conversely, a low level of supply chain integration can create an enlarged demand for the supply chain known as the "bullwhip effect," which results in too much inventory (Li et al., 2009). The indicator used to measure external integration is that companies share risks with partners, make long-term contracts with partners, share information with partners, and share costs with partners in logistical activities.

2.3. Firm Performance

The firm performance focuses on the company's ability to efficiently exploit available resources to achieve the goals set by the company (Taouab & Issor, 2019). Firm performance is a broad concept that encompasses various operational dimensions, management, and the competitive advantage of a company and its activities (Tarigan et al., 2018). Firm performance can be in the form of financial performance, customer satisfaction levels and customer growth rates can also be firm performance (Tseng & Liao, 2015). Firm performance is a measurement carried out by a company on part or all of the activities of a company in a certain period with predetermined and projected standards based on efficiency, accountability, or management accountability (Chen et al., 2019). Firm performance can also be said as something the company produces in a certain period by referring to the standards set (Retnawan, Kindangen, & Sepang, 2016), which is also a certain measure used to measure the success of the company. Firm performance is an achievement by a company through the activities of managing its resources (Eker and Eker, 2018). These work activities and activities include all functions that exist within the company in achieving company goals, company values, characteristics, competitive advantage. Measurement items used to measure it are an increase in the number of company sales, a reduction in company operating costs, an increase in company customer satisfaction, and a company's ability to meet customer needs.

3. Research method

This study aims to seek the relationship between several independent and dependent variables in the form of a causal relationship (Sekaran & Bougie 2016). The population in this research is the fast-moving consumer good (FMCG) manufacturing companies categorized as large and medium-sized in East Java, Indonesia. Data collection, covering a total of 55 companies, used a questionnaire designed with a five-point Likert scale. The questionnaire contains the item to measure the opinions and perceptions of the respondents. Fig. 1 illustrates the research model of this study with the related hypothesis.

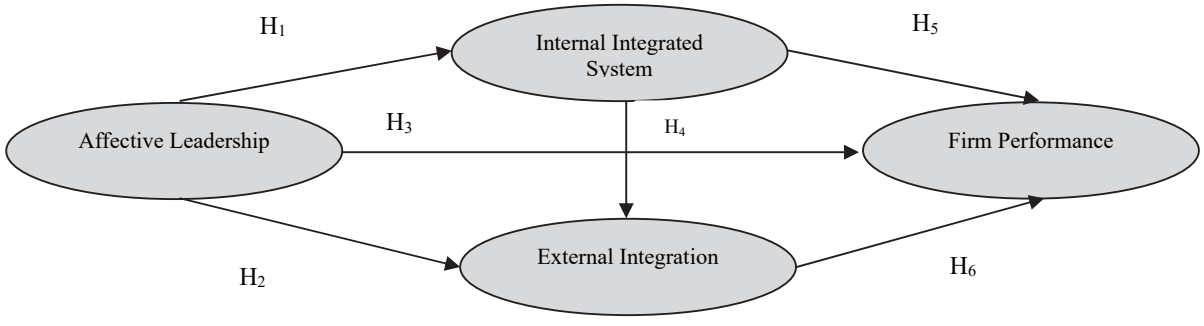

Fig. 1. Research Model and Hypothesis

As shown in Fig. 1, six hypotheses are formulated as follow:

H1: Affective leadership affects the integrated internal system.
H2: Affective leadership affects external integration.
H3: Affective leadership affects firm performance.
H4: Internal integrated system influences external integration.
H5: Internal integrated system affects firm performance.
H6: External integration influences firm performance.

Based on the descriptive analysis on the respondents, the result indicated that all respondents engaged in different departments with the composition as follows: production with 14 respondents (25%), PPIC with ten respondents (18%), purchasing with eight respondents (14.5%), marketing with six respondents (11%), operational with five respondents (9%), quality control and R and D with two respondents (4%). Those respondents are considered knowledgeable in responding to the questionnaire since they deal with the undermining concept of the study in daily operation. The production department is directly related to production planning and availability of the stock for a smooth production process. Meanwhile, the purchasing department engages in material procurement to support the production department. The sales & marketing department is directly related to marketing products, fulfilling the customers or distributor's orders. Besides, sales and marketing also improve company performance in dealing with customer complaints. The operational department is responsible for managing and increasing the effectiveness and efficiency of production and distribution in the factory. The quality control and research & development are responsible for managing and checking the quality of suppliers or vendors as well as the quality of the products produced by the factory. At the same time, the research & development department is responsible for producing innovations that support the existence of technology, products, machine capabilities, and others. The size of the company is based on the number of employees working on food and beverage companies. A large-sized compony is categorized with the number of employees more than 100 workers. Meanwhile, medium-sized companies have the number of workers between 20 and 99 workers. There are 42 (76%) large-sized companies engaged in this study, while 13 companies (24%) are medium-sized companies.

4. Measurement Analysis

Data Analysis used the partial least square (PLS) technique utilizing Smart PLS software. The first step of analysis is to assess the outer model, and the second step is to examine the inner model. The outer model assessment seeks the validity (convergent and discriminant validity) and reliability of indicators of each construct (Hair et al., 2014). The second stage is to examine the hypothesis developed by assessing the path coefficient between constructs. Hypothesis testing is conducted by looking at the t-statistics value as the result of the bootstrapping process. Based on the calculation results, the factor loading value of the Affective leadership is between 0.712 and 0.803, the outer loading value for the integrated internal system is 0.622 to 0.824, for external integration the factor loading values are from 0.623 to 0.795, and finally on firm performance between 0.560 and 0.871. The minimum recommended value for the factor loading is 0.500. Hence, all indicators of the construct ae considered valid in terms of convergent validity. Discriminant validity is another measurement to assess the validity of the indicator. It is measured using the value of the average variance extracted (AVE). The AVE of affective leadership was 0.583, internal integrated system variable of 0.573, external integration variable of 0.523, and firm performance of 0.526. The value of AVE for each indicator is > 0.500 (the minimum value of AVE); hence all indicators are all valid in terms of discriminant validity. The reliability measures the accuracy, consistency, a measuring instrument. This study used the composite reliability as the reliability measurement with the minimum acceptable value is 0.700. The composite reliability value for affective leadership was 0.848, integrated internal system 0.842, external integration 0.813, and the firm performance 0.811. Based on this finding, those indicators are considered reliable and further analysis; namely, hypothesis testing can be conducted

5. Results and Discussion

The descriptive analysis performed resulted in the finding, as shown in Table 1.

Table 1
Descriptive analysis result

Code	Descriptive description	Mean	St. dev	Category
AL1	The leader is a role model for company employees	4.2407	0.7252	Very High
AL2	The leader is able to communicate well	4.0741	0.7974	High
AL3	The leader has the ability to solve problems well	4.1481	0.7113	High
AL4	The leader is able to provide strong inspiration	4.0471	0.8434	High
Affective Leadership		4.1343	0.7689	High
IIS1	Availability data is faster in solving problems	4.0471	0.723	High
IIS2	Data integration between departments is well available	4.0469	0.7734	High
IIS3	The accuracy of the company in making plans	4.2037	0.9393	Very High
IIS4	The company's ability to make better forecasts	4.0000	0.9713	High
Integrated internal system		4.0880	0.8554	High
EI1	Companies are capable of share risks with partners	3,9259	0.9286	High
EI2	Able to make long-term contracts with partners	4.2407	0.8227	Very high
EI3	Able to share information with partners	3.8519	1.1059	High
EI4	Share costs with partners in active its logistic	4.2222	0.8165	Very High
External Integration		4.0602	0.9356	High
FPa	Increase in the number of company sales	4.2407	0.8227	Very High
FPb	Reduction in company operating costs	3.9074	0.7835	High
FPc	Company customer satisfaction is increasing	4.2778	0.7115	Very High
FPd	The company's ability to meet customer needs	4.2963	0.6625	Very high
Firm Performance		4.1806	0.7593	High

Based on Table 1, the value of the score for affective leadership items is between 4.0741 and 4.2407, with the average value of 4.1343, and the standard deviation of 0.7689. This result is categorized high, which means that leader provides a role well in the companies. The second variable, the integrated internal system, has integrated the internal functions of the company properly, with an average value of 4.0880, and a standard deviation is 0.8554. The integrated internal system has been running well, and there has been an internally integrated system between functions in the company. The external integration, the integration of the company with the company's partners, has an average value of 4.0602 and a standard deviation of 0.9356. This finding shows that external integration has been established appropriately, especially since the company has built long-term contracts with partners. Finally, firm performance has an average value of 4.1806 and a standard deviation of 0.7593. This result shows that the company has achieved excellent performance.

Table 2
Hypothesis testing result

Direct Effect	Direct Effect	Standard deviation	T-Statistic
Affective Leadership → Internal Integrated System	0.573	0.110	5.220
Affective Leadership → External Integration	0.210	0.099	2.130
Affective Leadership → Firm Performance	0.223	0.104	2.281
Internal Integrated System → External Integration	0.603	0.106	5.675
Internal Integrated System → Firm Performance	0.055	0.214	0.257
External Integration → Firm Performance	0.428	0.211	2.029

The result of inferential data analysis to answer the research hypothesis is shown in Table 2. The results demonstrated that affective leadership influences the integrated internal system, with the direct effect value of 0.573, a standard deviation of 0.110, and a t-value of 5.220. This finding shows that affective leadership affects the integrated internal system. The most correlated indicator, with the factor loading of 0.803, is the ability of a leader to communicate well (AL2). For firm performance, the indicator with the highest factor loading is 0.871, which explains the company is capable of meeting the customer needs (FPD). The leader's ability to communicate well will be able to empower all components of the company to meet the needs of the company's customers. This research is in line with Chen et al. (2019), which states that leadership can increase firm performance by stimulating employee creativity and exploratory innovations, especially when the company is in an environment with high technological uncertainty and uncertain market conditions.

Besides, the results show that affective leadership influences external integration, with a direct effect value of 0.210, a standard deviation value of 0.099, and a T-statistic of 2.130. The affective leader improves external integration. The most correlated indicator is the ability of the company enters into a long-term contract with a partner (EI2), with the factor loading is 0.795. This finding shows that leaders build external integration through the establishment of long-term contracts that are mutually beneficial to both parties. Similarly, the results also show that affective leadership has a direct effect on firm performance, with a direct effect value of 0.223, a standard deviation value of 0.104, and a T-statistic of 2.281. This result shows that affective leadership has a direct effect on increasing firm performance. Table 2 also indicated that the internally integrated system has a direct effect on external integration, with a direct effect value of 0.603, a standard deviation value of 0.106, and a T-statistic of 5.675. The integrated internal system has a direct effect on external integration. The internally integrated system between departments has worked well so that companies can build better external integration in sharing information with partners. The integration between internal and external build better competitiveness and improving company performance. However, the internally integrated system is not able to influence firm performance, with the value of the direct effect is 0.055, a standard deviation value of 0.214 and a T-statistic of 0.257. The internally integrated system does not have a direct effect on firm performance.

In the last finding, external integration has a direct effect on firm performance, with a direct effect value of 0.428, a standard deviation value of 0.21,1, and a T-statistic of 2.029. Two indicators most described the external integration, i.e., the company's ability to establish long-term contracts with partners (EI2) and the company's ability to share risks with partners. The external integration increases firm performance by meeting the needs of corporate customers and increase company sales. This research is in line with research conducted by Su and Yang (2010), which states that the integration with the external partners provides a benefit for the company in terms of better firm performance. The establishment of an excellent relationship between the company's internal and external, by adopting an ERP system, improves the ability to make useful and critical decisions, increase information flow, reduce distribution costs. This relationship enhances the synchronization between partners in the supply chain to work together.

6. Conclusion

This study aims to seek the role of affective leadership in improving firm performance through the integrated internal system and external integration. The result reveals that the top leadership of the company, called the leader, must build an effective and efficient company system in order to improve company performance and company competitiveness. Affective leadership can empower the functions in the organization to build an adequate integrated internal system that can be used by all cross-functional in the company. Affective leaders who build excellent communication will have an influence on external integration

with partners by making long-term contracts that benefit both parties. Affective leaders are also able to build communication with customers about their needs and then to be communicated internally and with supplier partners. Affective leaders who can build an integrated internal system can integrate with external partners. Integrated internal systems can have an impact on external integration by sharing information quickly so that the company internal could meet the demands of corporate customers. However, an internally integrated system that has been running well is not able to have a direct influence on firm performance, so it is essential to integrate with external integration in the pursuit of better firm performance. The results showed that affective leadership influences the integrated internal system and external integration to improve the performance of manufacturing companies. This study may provide a new insight for the manager to improve the firm performance through the enhanced role of the affective leadership in establishing an integrated internal system and building external integration. This research also provides enrichment for current research in the field of supply chain management.

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References

Agha, W. A., Ragheb, M. A., and Shawky, A. Y. (2019). Transformational leadership as a critical success factor for enterprise resource planning system implementation. *Open Access Library Journal, 6*(1), 1–27.

Aremu, A. Y., Shahzad, A., and Hassan, S. (2018). Factors affecting enterprise resource planning adoption on firms' performance among medium-sized enterprises. *International Journal of Supply Chain Management*, *7*(6), 1–8.

Beheshti, H. M., Blaylock, B. K., Henderson, D. A., & Lollar, J. G. (2014). Selection and critical success factors in successful ERP implementation. *Competitiveness Review*, *24*(4), 357–375.

Birasnav, M. (2013). Transformational leadership and supply chain management practices: An empirical study. *International Journal of Business Performance and Supply Chain Modelling*, *5*(4), 1–17.

Birasnav, M., & Bienstock, J. (2019). Supply chain integration, advanced manufacturing technology, and strategic leadership: An empirical study. *Computers & Industrial Engineering, 130*, 142–157.

Birasnav, M., Mittal, R., & Loughlin, S. (2015). Linking leadership behaviors and information exchange to improve supply chain performance: A conceptual model. *Global Journal of Flexible Systems Management*, *16*(2), 205–217.

Burawat, P. (2019). The relationships among transformational leadership, sustainable leadership, lean manufacturing and sustainability performance in Thai SMEs manufacturing industry. *International Journal of Quality & Reliability Management*, 36 (6), 1014-1036.

Chen, J. X., Sharma, P., Zhan, W., & Liu, L. (2019). Demystifying the impact of CEO transformational leadership on firm performance: Interactive roles of exploratory innovation and environmental uncertainty. *Journal of Business Research, 96*, 85-96. https://doi.org/10.1016/j.jbusres.2018.10.061

Defee, C. C., Stank, T. P. (Ted), and Esper, T. (2010). Performance implications of transformational supply chain leadership and followership. *International Journal of Physical Distribution & Logistics Management*, *40*(10), 763–791.

Eker, M., & Eker, S. (2018). The impact of interaction between enterprise resource planning system and management control system on firm performance in the Turkish manufacturing sector. *Business and Economics Research Journal*, *9*(1), 195–212.

Han, J., Lu, H., Trienekens, J. H., & Omta, S. W. F. (2013). The impact of supply chain integration on firm performance in the pork processing industry in China. *Chinese Management Studies*, *7*(2), 230–252.

Hartarto, A. (2019). Kementrian Peridustrian Republik Indonesia, Industri makanan dan minuman jadi sektor kampiun, [*Ministry of Industry of the Republic of Indonesia, the food and beverage industry is a champion sector*] *Kemenperin.go.id*. Retrieved from https://kemenperin.go.id/artikel/20298/Industri-Makanan-dan-Minuman-Jadi-Sektor-Kampiun-.

Gosling, J., Jia, F., Gong, Y., & Brown, S. (2016). The role of supply chain leadership in the learning of sustainable practice: toward an integrated framework. *Journal of Cleaner Production*, *137*(1), 1458–1469.

Gupta, S., Qian, X., Bhushan, B., & Luo, Z. (2018). Role of cloud ERP and big data on firm performance: A dynamic capability view theory perspective. *Management Decision*, *5*(1), 1–27.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., and Kuppelwieser, V.G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review, 26*(2), 106-121. https://doi.org/10.1108/EBR-10-2013-0128

Huo, B., Qi, Y., Wang, Z., & Zhao, X. (2014). The impact of supply chain integration on firm performance. *Supply Chain Management: An International Journal*, *19*(4), 369–384.

Jehanzeb, K., & Mohanty, J. (2020). The mediating role of organizational commitment between organizational justice and organizational citizenship behavior: Power distance as moderator. *Personnel Review, 49*(2), 445-468, DOI 10.1108/PR-09-2018-0327

Leuschner, R., Rogers, D. S., & Charvet, F. F. (2013). A meta-analysis of supply chain integration and firm performance. *Journal of Supply Chain Management*, *49*(2), 34–57.

Li, G., Yang, H., Sun, L., & Sohal, A. S. (2009). The impact of IT implementation on supply chain integration and performance. *International Journal of Production Economics*, *120*(1), 125–138.

Liu, H., Ke, W., Wei, K. K., & Hua, Z. (2013). Effects of supply chain integration and market orientation on firm performance. *International Journal of Operations & Production Management*, *33*(3), 322–346.

Masa'deh, R., Obeidat, B. Y., and Tarhini, A. (2016). A Jordanian empirical study of the associations among transformational leadership, transactional leadership, knowledge sharing, job performance, and firm performance. *Journal of Management Development*, *35*(5), 681–705.

Mehrjerdi, Y. Z. (2010). Enterprise resource planning: Risk and benefit analysis. *Business Strategy Series*, *11*(5), 308–324.

Mokthar, A. R. M., Genovese, A., Brint, A., & Kumar, N. (2018). The relationship between supply chain leadership and suppliers' performance in manufacturing industries. *Semantic Scholar*, *4*(3), 1–16. Retrieved from https://pdfs.semanticscholar.org/0000/395282460d913902fc9e0a336481ff4ebb38.pdf.

Ojha, D., Acharya, C., and Cooper, D. (2018). Transformational leadership and supply chain ambidexterity: Mediating role of supply chain organizational learning and moderating role of uncertainty. *International Journal of Production Economics*, *197*(2), 215–231.

Rattanaborworn, J., & Ussahawanitchakit, P. (2015). Transformational leadership and firm performance: Empirical evidence from instant foods and convenience foods businesses in Thailand. *The Business and Management Review*, *7*(1), 1–12.

Ravichandran, S., Gilmore, S., & Strohbehn, C. (2007). Organizational citizenship behaviour research in hospitality: current status and future research directions. *Journal of Human Resources in Hospitality & Tourism*, *6*(2), 59-78.

Retnawan, W. A. D., Kindangen, P., & Sepang, J. L. (2016). Analisa kinerja perusahaan dengan menggunakan pendekatan balance scorecard (Studi kasus pada PT United Tracktor, TBK). *Jurnal Berkala Ilmiah Efisiensi*, *16*(3), 219–229.

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach.* United Kingdom: John Wiley & Sons.

Shanab, E. A., Shehab, R. A., and Khairallah, M. (2015). Critical success factors for ERP implementation: The case of Jordan. *International Arab Journal of e-Technology*, *4*(1), 1–7.

Shatat, A.S., & Udin, Z. M. (2012). The relationship between ERP system and supply chain management performance in Malaysian manufacturing companies. *Journal of Enterprise Information Management*, *25*(6), 576–604.

Shaul, L., & Tauber, D. (2012). CSFs along ERP life-cycle in SMEs: A field study. *Industrial Management & Data Systems*, *112*(3), 360–384.

Su, Y., & Yang, C. (2010). Why are enterprise resource planning systems indispensable to supply chain management? *European Journal of Operational Research*, *203*(1), 81–94.

Taouab, O., & Issor, Z. (2019). Firm performance: Definition and measurement models. *European Scientific Journal*, *15*(1), 93–106.

Tarigan, Z. J. H., Siagian, H., & Bua, R.R., (2018). The impact of information system implementation to the integrated system for increasing the supply chain performance of manufacturing companies. *IOP Conf. Series: Materials Science and Engineering, 47*3, 012050

Tarigan, Z.J.H., Siagian, H., & Jie, F. (2020). The role of top management commitment to enhancing the competitive advantage through ERP integration and purchasing strategy. *International Journal of Enterprise Information Systems, 16*(1), 53-68

Tseng, P. H., & Liao, C. H. (2015). Supply chain integration, information technology, market orientation and firm performance in container shipping firms. *The International Journal of Logistics Management*, *26*(1), 82–106.

Vito, G., Higgins, G., & Denney, A. (2014). Transactional and transformational leadership. *Policing: An International Journal of Police Strategies & Management, 37*(4), 809-822.

Xu, Q., & Ma, Q. (2008). Determinants of ERP implementation knowledge transfer. *Information & Management*, *45*(8), 528-539.